

STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

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March 31, 2010

Mr. Brian Wood Environmental Manager Weyerhaeuser Longview 3401 Industrial Way P.O. Box 188 Longview, WA 98632-7117

Dear Mr. Woods:

PSD Applicability of the No. 11 Boiler Soot Blower Addition Project

Weyerhaeuser Longview submitted a PSD applicability determination dated January 27, 2010, in response to Ecology's October 30, 2009 letter. The new submittal was organized in two sections:

- 1. A qualitative analysis discussing issues.
- 2. A quantitative analysis of the project's annual emissions increase.

This letter has a discussion of each of these sections, and a conclusion at the end.

Discussion of Qualitative Analysis Section

The qualitative analysis established that combustion of the new coal would result in lower NO_X and SO_2 emissions on a lb/MMBtu basis. It also stated that Weyerhaeuser's coal purchase contract would allow use of other types of coal at any time. Ecology does not dispute these claims.

In Ecology's opinion, the Soot Blower Addition Project is a physical change as used in the PSD definition of major modification. Once it is established that the project includes a physical change (or change in the method of operation), then it must be determined if the project causes a PSD significant increase in emissions. Weyerhaeuser discusses this in part 2 of the January 27

¹ From 40 CFR 52.21(b)(2)(i) Major modification means any physical change in or change in the method of operation of a major stationary source that would result in: a significant emissions increase (as defined in paragraph (b)(40) of this section) of a regulated NSR pollutant (as defined in paragraph (b)(50) of this section); and a significant net emissions increase of that pollutant from the major stationary source.

letter, the quantitative analysis of project emissions. Because Ecology determined that the project included a physical change to the boiler, it means that the qualitative analysis alone cannot allow the Soot Blower Addition Project to avoid PSD applicability. An estimate of the emissions increase (or decrease) due to the project must be done according to PSD applicability procedures.²

Discussion of the Quantitative Analysis Section

Section 2 attempted to show that the emissions increase due to the project was less than significant, but in Ecology's opinion, it did not. The quantitative analysis used the best 24-month baseline that was available, which included some months burning the old coal, some burning a mix of the two, and some burning the new coal. This is not ideal, but it is the best available. It then calculates the boiler's projected actual emissions at 97.81% of PTE using emission factors based on the mix of new coal and other fuels fired. This assumes for calculation purposes that the coal switch represents future emissions.

The analysis also calculated excluded emissions³ based on the assumption that on an annual basis the boiler could operate at 97.81% of its 550 MMBtu steam production capacity. The difference between that emission rate and the baseline emissions was calculated to be the excludable emission that could be used to adjust projected actual emissions as allowed in 40 CFR 52.21 (b)(41)(ii)(c). In affect, this considered 97.81% of the boiler's PTE to be usable to subtract from projected actual emissions to determine if a significant emissions increase occurred due to the project.

Ecology feels that the way Weyerhaeuser calculated the excludable emissions was not within the scope of the EPA's PSD applicability calculation procedure. A PSD applicability determination under the December 2002 issued EPA regulations must be of the type called an "actual to actual" comparison of emissions before and after the project. The calculation of excludable emissions must also respect the "actual to actual" concept. A "potential to actual" type of comparison is specifically not allowed. The way Weyerhaeuser calculated excluded emissions clearly was of the "potential to actual" method. It was not based on demonstrated actual emissions rate, but the potential emission rate of the boiler during the baseline period.

A second issue with excluded emissions is that they must be "unrelated to the project." There is little EPA-published public guidance on this subject. EPA Region 10 is implementing this provision with a restrictive use policy that makes it an option that is of very limited availability.

Ecology recognizes that there is very little public guidance issued by EPA on how to calculate excluded emissions. There has been much discussion within our staff and with EPA Region 10 on this excluded emissions issue. The result has been that EPA has effectively eliminated any use of the excluded emissions to adjust the difference between baseline actual emissions and

³ 40 CFR 52.21(b)(41)(ii)(c)

² 40 CFR 52.21(a)(2)

⁴ See the preamble discussion in the December 31, 2002, Federal Register starting on page 80186.

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projected actual emissions. Ecology is delegated by the EPA to implement the Federal PSD program in Washington State. So, for this project, the use of excluded emissions is not allowed.

When Tables 7 and 8 of Weyerhaeuser's January 27 letter are evaluated without excluded emissions, the calculation indicates that PM, PM₁₀, PM_{2.5}, SO₂, NO_X, and CO is PSD-applicable for the Soot Blower Addition Project.

Conclusion

Ecology's analysis of the revised applicability determination submitted by Weyerhaeuser to Ecology dated January 27, 2010, indicates that the project is PSD-applicable for at least one pollutant under Federal PSD applicability regulations. At its option, Weyerhaeuser can prepare a PSD application for the Soot Blower Addition Project, or exercise its source obligation options available under 52.21(r)(6) and WAC 173-400-720(4)(b)(iii)(C).

If you have any questions or comments, please contact Robert Burmark at (360) 407-6812 or robert.burmark@ecy.wa.gov.

Sincerely,

Jeff Johnston, Ph.D.

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bb/te

cc:

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